



THOMAS G. NEWMAN,
EDITOR.

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Editorial Buzzings.

Golden Rod.

Graceful tossing plume of glowing gold.
Waving lonely on the rocky ledge,
Leaning seaward, lovely to behold,
Clinging to the high cliff's ragged edge.
—CELIA THAXTER.

Golden Rod last year was credited by many apiarists in different States, with having yielded considerable honey.

Flowers were blooming out-of-doors on Christmas day in Vashon, King county, Washington. So writes our friend, John Boerstler. The mean temperature for November was $46\frac{1}{4}^{\circ}$; and December was very much like it.

The Rev. Emerson T. Abbott has gone to Texas, for a change of air, as his health is not very good. He will remain for a few weeks, and then return again to St. Joseph, Mo. He has our best wishes for renewed energies.

What next, asks the Michigan Farmer, and then adds:

What won't a beeman patent next! Merriman, of Massachusetts, has patented a "bridge" to enable bees to pass through the chaff or packing of a double-storied hive—two strips nailed to cleats allowing space for a bee to pass constitutes this "bridge," which, like many another device, has been used by apiarists, in some form, for years.

We give it up! Next time, ask us something easier!

Correspondence on bee-matters is solicited. If you have anything worth writing about, send it along.

To Show Appreciation for the good work we have done in the past, please to call the attention of your friends to our JOURNAL, and ask them to partake of the feast with you for 1891.

The greatest glory is not in never falling, but in rising every time we fall.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks, if your name is not found on page 60 of this JOURNAL. New members for 1891 are not included in that list.

To select well among old things is almost equal to inventing new ones.

The Doll Show was a great success. There were 3,000 dolls exhibited. It is celebrated by the publication of a "Doll Supplement" this week by Frank Leslie's Illustrated Newspaper. The treatment of the special patient sent to Berlin, is illustrated, and the condition of the patient described.

Why Complain because others do not agree with us? a little reflection would show us that each one's conception and understanding, must be according to their culture and experience.—Exchange.

Moving Bees Several Miles.—Frank S. Abbott, of Cattaraugus County, N. Y., writes:

Please give details, in the BEE JOURNAL, how and when to move bees. I have 20 colonies, and I want to move them about 15 miles. F. S. ABBOTT.

They can be moved any time, but, on a sled when the ground is covered with snow, would be preferable. Mr. Erkel has had considerable experience in moving bees on wagons, over rough roads, etc., and he gives his experience and advice thus:

To successfully move bees, the bottom as well as the top of the frames should be securely fastened, so they will not slide together and kill the bees. To fasten the bottom of the frames, cut ten notches in a stick one inch wide, or just wide enough to correspond to the ten frames; or you might drive small nails through a thin strip in such a way that a nail will come between every two frames.

Now, with a smoker in hand, pry up the hive from the bottom-board, and give them a puff or two of smoke to drive them out of the way; then, before they get time to come down, slip the projection on the notched stick, or the nails between the frames, using one, or better, two of these sticks; let down the hive, and the frames cannot get out of place.

I generally fasten the top of the frames by placing a thin strip of enamel cloth on top of them, and carefully shove, not pound, $\frac{1}{8}$ -inch wire brads through the strip and down into the frames.

If it is warm weather, and the bees are to be on the road for some time, they must have plenty of ventilation. This must be regulated according to the weather. Sometimes it would be advisable to remove the cloth and put a wire-screen over the whole of the top; but, as a general thing, I pull back the cloth 2, 3 or 4 inches from the end and fasten wire-screen over this opening. Do not nail up the entrance, but put wire-cloth over that, too, which will give circulation through the hive.

If you move your bees by wagon, put a wood-rack on a lumber wagon, nail boards inside the stakes, and fill up the space about 2 feet with hay, and then place the hives on the hay, with the frames crossing the road-bed. I consider the hay better than springs.

Likes the New Form.

With the first mail of the New Year came the BEE JOURNAL in its new form. Allow me to congratulate you, upon its improved appearance; although so like the old, that nothing is lost. On the inside, among the first items, I noticed that you had *not* been receiving the Nebraska Bee-Keeper. This I do not understand, as a copy has been mailed to you of each issue. L. D. SILSON.

York, Nebr., Jan. 2, 1891.


Mr. Stilson is the editor of the Nebraska Bee-Keeper, which, as we stated last week, had not put in an appearance for some time. He has our thanks for his appreciation of our enlargement.

The "Nebraska Bee-Keeper" for January, is now on our desk. Among its items of interest, we find the following:


Look out for the leaky roofs on your hives! They are more disastrous and annoying to bees, than a leaky roof would be, to you, on your own house. A good coat of paint, run well into the cracks, will generally answer the purpose.

The beginner has to commence at the foot of the hill, and learn by experience. True, he should have some knowledge of bees and their ways, in order to begin. He needs to read some good bee-book, and should take one or more bee-periodicals.

Honey-producing is a business that is especially suitable for women. They will attend to the numerous small details which are necessary; while but few men are willing to give the time that is requisite.

 The Iowa State Horticultural Society will meet in the Horticultural Rooms at the Capitol, at Des Moines, on Tuesday, Wednesday and Thursday, Jan. 20, 21 and 22, 1891. Programme and premium list will be sent to all applicants.

Eugene Secor, President, Forest City.
Geo. Van Houten, Secretary, Lenox.

 We Club the American Bee Journal and the Illustrated Home Journal, one year, for \$1.35. Both of these and Gleanings in Bee Culture, for one year, for \$2.15.

Bees and Grapes.—Here is more testimony from raisin-growers that bees will not puncture sound grapes. It is from I. P. Israel, Olivenhain, Calif., and is from *Gleanings* of Nov. 15, 1890. He says:

I have seen Prof. N. W. McLain's experiments with bees and grapes called in question by some of the bee-papers. But I think I could convince the greatest skeptic of their truth and reliability. We are now picking our grapes and making our raisins. Now, friend Root, walk up into the vineyard with me. You see we are cleaning the grapes at tables. You see and hear thousands of bees on the tables, on the long line of cleaned grapes, on almost every vine around you, and flying around your head. Take this bunch of grapes. You see half a dozen bees busy on it. They are sucking the juice from the half-decayed grapes, and those that have been punctured by the birds.

You know already that a bee will suck the juice from rotten or broken fruit. But here is another bunch—the grapes about as large as your best eastern plums. Every grape is as pure, perfect, and unblemished as if it just came from the hands of the Creator. Hold that up for 5, 10, 15 minutes, and not a single bee will alight upon it. Oh, yes! they will fly around it and sniff at it, but they won't alight on it. Why? Simply because there is nothing for them to get, and they won't try to pierce a grape. Now you are satisfied that no bee is going to alight on that bunch. But pull one single grape off of it, and see the change! There is a large, luscious grape at the top—near your hand. But, hold! Have your mouth wide open and ready to shut the door when the grape goes in, or you may have a small family of bees in there too. You must do this or take a walk once or twice around that grape before eating it. The moment the grape leaves the stem the bees will dash at both of them for the fresh juice. These facts which I have tested again and again, prove that bees do no injury to grapes or fruit. But yellow-jackets can and do pierce the grape. They will, in cool cloudy weather, cut the cheese-cloth into shreds and go in and destroy grapes or raisins.

We Learn that the East is to have another new bee-paper, to be called "The Bee-World." It is to be located very near to the *American Bee-Keeper*.

Affiliation and Strength.—About the forming of local associations, Mr. E. R. Root says:

Right here I wish to urge upon all our readers the necessity of forming, if possible, local associations. Make some prominent bee-keeper its president, and some other one, equally prominent, its secretary. After that, you can organize a good rousing society, and see what a nice lot of people bee-keepers are. Oh, yes! after you are well organized, affiliate with the North American Bee Keepers' Association.

We fully endorse the above and hope that associations will be formed in every locality, who will affiliate and thus help to make a strong National organization,

To Connecticut Bee-Keepers.

What has become of the bee-keepers of Connecticut, that we do not hear more from them? Come, wake up, and let us hear from you, and what has been your experience during the past season. It has been the poorest one that I have experienced for many years. I began the season with 3 colonies. These gave but 2 swarms, and produced but 50 pounds of honey; all but 5 pounds of which, I extracted. I put my 5 colonies, and one which I exchanged for honey, in their Winter quarters about Oct. 10, and fed them 14 pounds of sugar syrup, or all they would take. As other bee-keepers are writing of the premiums awarded them at fairs for goods displayed, I will mention a few that I have received: Among the numbers were first premiums on bees, hives (Simplicity), an extractor, and other supplies; also second premium on comb-honey—extracted-honey by accident being left out. Would it not be a good idea for the bee-keepers of this State to form an Association for mutual benefit, and an interchange of ideas?

EDWIN E. SMITH.

Watertown, Conn., Dec. 24, 1890.

The Apiculturist, for January, comes to hand just as the *JOURNAL* is all ready for the press. It comes up as "bright and rosy" as a June morning. We congratulate Bro. Alley upon its interesting contents and excellent appearance. It has 16 pages and a cover, and costs 75 cents a year. It will be sent for one year with the *AMERICAN BEE JOURNAL* for \$1.65 for both.

Southwestern Wisconsin Convention.

As it is always pleasant to look upon the countenances of those we read about, we present on the opposite page the reproduction by the half-tone process of a photograph which was sent to us by Mr. France, sometime ago. This engraving was made for *Gleanings*, and kindly loaned to us by friend Root. The following is the official notice calling the next meeting:

The next annual meeting of the Southwestern Wisconsin Bee-Keepers' Association will be held in the Court House at Lancaster, Grant county, Wis., on Wednesday and Thursday, March 25 and 26, 1891. Full particulars will hereafter be given in regard to railroad and hotel rates. A complete programme will be published as soon as it is completed. There will also be a question-box, free to all, in which any questions may be put, and they will be discussed to the satisfaction of all. Let all who are interested in bee-culture, and wish to join with us, make an extra effort to be present. BENJ. E. RICE, Sec.

EDWIN PIKE, Pres.

When looking at the faces presented in the engraving, just notice the numbers on each person, which refer to corresponding numbers as herein enumerated:

1. James Armont, Argyle.
2. John Hohmann, Durango, Iowa.
3. Mrs. N. E. France, Platteville.
4. Frankie France, Platteville.
5. N. E. France, Platteville.
6. Miss Ida Smith, Darlington.
7. Mrs. E. Pike, Boscobel.
8. Mrs. W. Bailie, Lancaster.
9. Mrs. H. Gilmore, Georgetown.
10. Mrs. M. M. Rice, Boscobel.
11. Mr. R. K. Jones, Boscobel.
12. Ben. Rice, Boscobel.
13. H. Evans, Wauzeka.
14. E. France, Platteville.
15. E. Pike, Boscobel.
16. Mrs. R. D. Wilson, Platteville.
17. Mrs. H. C. Gleason, Lancaster.
18. Mrs. E. France, Platteville.
19. William Kaump, Cuba City.
20. R. L. Clark, Georgetown.
21. John Clark, Potosi.
22. Joseph Patzner, Potosi.
23. Charles Patzner, Potosi.
24. Henry Franke, Potosi.
25. G. W. Kendall, Boscobel.
26. R. D. Wilson, Platteville.

27. John Kemp, Jamestown.
28. R. K. Jones, Boscobel.
29. L. C. Fuller, Dubuque, Iowa.
30. W. H. Prideaux, Bloomington.
31. William Seeman, Boscobel.
32. James Harker, Argyle.
33. W. J. Bailie, Lancaster.
34. H. C. Gleason, Lancaster.
35. Austin Dexter, Boscobel.
36. M. M. Rice, Boscobel.
37. Henry Clark, Potosi.
38. John Kemp, Jamestown.
39. A. E. Cooley, Mt. Hope.
40. Mr. McLean, Platteville.
41. Delos Ricks, Boscobel.
42. George Fox, Big Patch.
43. H. C. Gilmore, Georgetown.
44. J. L. Lewis, Dubuque, Iowa.
45. James Wisdom, Boscobel.
46. J. W. Van Allen, Haney.
47. E. D. Peake, Jamestown.
48. Norman Clark, Potosi.
49. Seaman Howe, Platteville.
50. Martin Oudyn, Platteville.
51. Walter Pretts, Platteville.
52. Charles Nye, Jr., Platteville.

This is what friend E. R. Root says in *Gleanings* for Dec. 15, about the picture:

Why, it is inspiring to look upon those faces, and there are several of them that form quite a pleasant study. The natural poise of most of the figures, and the depth of expression of the faces, is most excellent.

Of course, the reproduction of the above is not quite equal to the photograph, but you get nearly the effect by holding it a little further away than the average reading distance, say about 14 or 15 inches.

There, now, notice particularly No. 14. Why, that is our old friend and veteran bee-keeper, and valued correspondent, E. France. Then in the foreground, No. 5, is Mr. N. E. France, and Master Frankie France beside him. The light was a little too strong for his eyes, evidently.

I wonder if Miss No. 6 with the papers in her hand, was one of the essayists of the day. (The figure 6 does not show very plainly, but its location cannot be mistaken, for it is between 5 and 7.) Miss Smith looks as if she might be equal to the occasion.

Of Benjamin Franklin it has been said by one of our best historians: "Franklin never spoke a word too soon, he never spoke a word too late, he never spoke a word too much, he never failed to speak the right word at the right time."



Wavelets of News.

Ice-bound is the brooklet now,
The hills are clad in snow,
The sleigh bells jingle merrily,
And past the skaters go.

The birds have left the cheerless woods,
The boughs are leafless now,
Cold winds are blowing mournfully,
Above the glistening snow.

Bees Stinging Hens.

When there has been a good flow of honey, and it suddenly ceases, bees are excited over it, and sometimes are ready to sting anybody and anything that comes in their way. Last year, at the close of the basswood harvest, mine attacked a coop of broody hens. Seeing a commotion among these cackling aspirants for motherhood, I divined the cause, and opened the door, when the hens made a "bee-line" for the protection of the raspberry bushes. The cat made frantic leaps into the air, with his tail somewhat resembling a rolling-pin. When bees are cross it is folly to open a hive.—*Prairie Farmer*.

Honey Imparts Strength.

The effete stomachs of this generation do not relish honey. In the days when men had physiques, and women were Dianas, honey was an acceptable food. Milk and honey made a concord ordained by Nature. Honey is pure; nutritious; rich. No perverting cook intervenes to spoil it. Fresh from Nature's hand it comes to us, served in the natural comb which surpasses China in delicacy, and of a consistency and color unattained by any wine.—*Western Apiarian*.

Candy for Bees in Winter.

It often occurs that Winter overtakes us with colonies that lack food. In such cases we cannot possibly use syrup for food, as the weather is too cold for the bees to seal it over, and unsealed stores will not serve properly for Winter. The moisture which always arises from the bees in cold weather, enters the unsealed honey and dilutes it, making it very unwholesome. Our only resort, therefore, for feeding in cold weather, is to make candy and use it. This is a very good and healthful food, if properly made and administered.

It is made from granulated sugar by melting it, adding a little water—no more than will thoroughly melt the sugar—when it is boiled a few minutes and poured out into cakes or slates of 3 or 4 pounds each. When cool this becomes very hard, almost like rock-candy.

In feeding this, it is placed on frames just over the cluster of bees, where they can have access to it at all times. When in this position it receives the heat arising from the bees and they remain on it all the time. It is so hard, that it will last them a long while. This candy may be given to the bees at intervals during the Winter, and colonies may be brought through in good condition which would have otherwise perished.

This, or any other work that is necessary to do with bees in Winter, should be done on warm days. It will not do to molest them on a cold day, but it should always be done on days when the bees are flying.—*American Agriculturist*.

Bees in the Greenhouse.

A writer, on "raising plants under glass," says that the plants must be jarred when in bloom to insure fertilization. Has he never heard of the natural fertilizers of flowers—bees?

The jarring of plants does not assist their growth nor increase their productiveness. Fertilization by hand is unnatural, and always unsatisfactory. There is a better and surer way. Let bees be the fertilizers of flowers, if a full crop is desired. The bees will do this under glass, as well as in the open air.

Since cultivation under glass became general, and an increased demand for early cucumbers and tomatoes sprung up, there has been a demand for bees solely for the purpose of fertilization of flowers.

Every greenhouse is open at least once a day in early, cold Spring, for ventilation. At this time, when there is still a sharp edge to the wind, when there are few if any flowers in the fields, the bees will enjoy the Summer warmth of the greenhouse, and go to it and spend all the time in it, if there be a place to enter and the weather is favorable.

They frolic in the sunshine, and perching on leaves, sip the water left by the sprinkler, and attend to their regular duties, namely, collecting pollen for the young bees, fed to them mixed with honey.

This gathering of pollen from the greenhouse flowers causes the fertilization. It is complete and thorough, for

in early Spring when outside flowers are few, the greenhouse pasture is the only one, and hence no flower can escape; every flower is visited many times probably.—GEO. A. STOCKWELL, *in the Country Gentleman*.

Bi-Sulphide of Carbon for-Ants.

Try the bi-sulphide of carbon as a remedy for red ants, so often mentioned by Prof. Cook. Directions: Pour about a pint into the hole; cover for about a minute, then explode the vapor that has formed, by burning a rag tied to a stick, and close up the hole air-tight. They call it ant-poison here. It is excellent for killing night-ants or cutting-ants.—R. WESTPHAL, *in Gleanings*.

Will Freezing Injure Foundation?

Freezing will do no harm at all, providing some inconsiderate person does not attempt to handle it while it is cold.

Persons who ought to know better undertake to move comb-foundation when it is almost icy cold. Of course, it flies to pieces like thin glass; and then, after they have done a lot of mischief, they sometimes undertake to repair it, and in so doing, they break a lot more of it.

Never touch foundation, nor even hardly look at it when it is in a cold room. Air and light have the effect of bleaching and hardening thin foundation, and as this makes it a little more difficult for the bees to work, it is generally considered better to have your foundation shut up in a box, protected from air and light as much as possible during the Winter time.—*Gleanings*.

Official Report.

The 21st Annual Report of the North American Bee-Keepers' Association has just come to hand from the publishers, Messrs. Thomas G. Newman & Son, of Chicago, Ills. As usual, it is well and neatly printed, and substantially bound in a tinted-paper cover. One thing we notice in particular in regard to this report is, that it is nearly twice as large as any other report of one convention. The Keokuk report occupies 50 pages, the size of this; the one at Columbus, 26 pages; the one at Brantford, a year ago, 28 pages. Every member will have a copy of the last report, and a good many who are not members should have it. Price, 25 cents each, or to members free.—*Gleanings*.

No Artificial Comb-Honey.

Many people confound comb with foundation. Artificial comb, like artificial eggs, has never been practically made. Had it been, it never could have been filled with honey or any manufactured substitute, and then capped over. The impossibility of this is plainly apparent when it is considered that it takes about 800 thicknesses of the wax, in the side walls of the cells, to make an inch in thickness, and that the cells are built with an upward incline, evidence of which is readily seen upon cutting a comb in two. Machinery could not be made to work so delicate an amount of wax, or form cells of such a peculiar shape and position.

Foundation is no more a comb than it is a board, until the bees have re-manipulated it, added to it, and again made of it, a comb.—H. L. JEFFREY, *in Home-Farm*.

Granulation of Honey.

It is practically easy to understand how honey from one kind of flower granulates sooner than that from another source; or how it is that honey from one district, or in another season, shows a greater readiness to crystallize; but when one is brought face to face with the problem: "How is it that one bee-keeper's honey, got in the same season, in the same district, candies sooner than his neighbors?" the matter cannot be so readily dismissed.

We must first think of nectar as simply a solution of cane sugar in water, the amount of sugar and chemical peculiarities varying, of course, with the kind of plant, with the wetness of the season, and also with the humidity of the air at the time of the nectar-flow (electrical influence is, for the moment, out of the question).

The business of the bee is to gather the nectar, remove some of the water by the help of its own system, and by the help of a salivary ferment, convert the cane into grape sugar; by adding formic acid to the honey, regurgitated into the cell, its further fermentation is arrested, and its keeping-quality well assured, after still more surplus water is allowed to evaporate, before the bee seals it up in the cell.

The honey is still, one-fifth of it, water; two-fifths of the rest is dextrose, or crystallizable sugar, with two-fifths levulose, or non-crystallizable. Extracting honey before it is all ripe, will, we know, throw out some bearing an undue

proportion of water in it, this having a tendency to retard the candying, but we shall throw out nearly all the dextrose, which increases this tendency.

If, however, one waits until it is all sealed (good, ripe stuff), when it is extracted, a certain portion of the crystalline sugar remains in the cell, and thus gives out a greater share of levulose (non-crystallizable) sugar. Such honey naturally holds out longer in a clear, fluid state.

If I had to decide between A and B in the same district, A having readily-candying honey, whilst B's remained fluid, I should say B extracted only from sealed combs, whilst his neighbor was not so particular. If this was not the case, my alternative would be, that the bees of A had easier access to water, thus allowing the crystalline sugar to be more readily slung out of the cells. I am presuming that A keeps his honey in as warm a place as B; if not, there is really no question at issue.—R. A. H. GRIMSHAW, in the *Record*.

Order Supplies Early.

Let us impress upon every bee-keeper the importance of placing an order for next season's supplies at an early date. This will relieve to a certain extent the rush of orders which always comes in May and June, and the experience of the past season, when all the dealers were behind, and some of the oldest and largest of them could not fill small orders in less than 3 weeks, which necessarily entailed a loss upon those customers who waited until the last moment. Every honorable dealer is anxious to furnish his customers with just what they want, but it is impossible for him to do it, at all times, when the year's business is compressed into 3 or 4 weeks.—*Exchange*.

Syrup for Feeding Bees.

Syrup for bees can be made of any of the cheaper grades of sugar, but when feeding for Winter stores, by all means use the best grade of granulated sugar. Take, say 12 pounds of sugar and 4 pounds of water, and bring it to a boil; this will make a syrup of the proper consistency.

I have repeatedly tried tartaric acid to prevent the granulation, but have not been able to notice any benefit, and do not recommend it; however, if about 2 pounds of extracted honey is stirred in as you lift the syrup from the fire, it will

do more to retard granulation in the combs than anything that I know of; it will also impart the honey flavor to the syrup, thus making it sought after by the bees. I notice that some of our friends entertain the idea that by adding more water to the syrup it will go farther.

This is an erroneous idea; the bees will evaporate the water and reduce it to a thickness consistent with keeping qualities. If the bees were deprived of this faculty, watery sweets would become sour and rancid in their cells.—*Indiana Farmer*.

Memory in Bees.

I was living in a town where I knew some few bees were kept, and I chanced to have some comb from which the honey had drained; and so, instead of being greedy, and squeezing out all I could get, I determined to give a feed all around to such bees as chose to accept my invitation to dinner. This invitation I gave by opening the window, and putting the honey on the sill. In about half an hour some foragers found it out; they helped themselves, and carried back the good news to the sisters in the hive. In the course of the morning my room was literally swarming with bees, and I need not tell you, as they are grateful creatures, that they did not meddle with me, but, as I sat at my books, repaid me for my treasure with their sweet music.

In the afternoon they were satisfied, at least for the day, and dropped off, one by one, without doing any injury.

There is nothing strange in all this; but now comes the interesting part of the story: I myself got up the next morning, some time before the bees are usually stirring, and, as I went to my window (it was in September) to see the first rays of the sun in the eastern sky, I was much surprised, and not a little delighted, to see a number of bees who had remembered and been grateful for the dinner the day before, waiting for me to let them in to a similar breakfast.

As some of the honey was left, you cannot doubt but that I complied with their wish, which was clear enough to me, though they had no tongue to express it. I opened the window; the room was soon filled; they cleared the combs of honey, and then went orderly away.

They haunted my windows for several mornings after, though I had no more honey to give them. This is, I think, a pretty strong instance of memory in bees.—*Spare Moments*.

North American Association.

I cannot refrain from saying that this meeting was one of the best, if not *the* best, in enthusiasm, good-natured banter, in attendance, in the *practical* character of the discussions, in the character of the *men and women* who went; and last, but not least, in the *business* done, and recommendations made—in the history of the Association; and I hope this is only a side-show of the good times coming, when the Association shall be incorporated under the laws of Illinois, and when the membership, instead of its present floating character, shall be permanent, with a long list of life-members, and annual members, who will keep up their dues, whether present or not.—E. R. Root, in *Gleanings*.

Laws on Bees in Germany.

We, William, King of Prussia, etc., decree throughout our Monarchy, by sanction of both Houses, the following, to wit:

1. The privilege of bee-keeping to all inhabitants on their own property.
2. The same right to all renters or leaseholders, by permission of the owners of the property.
3. Apiaries may be established anywhere against objections of neighbors, by enclosure of at least 2½ metres high; from April 1 to Oct. 1, 10 metres high (this is in case of neighbors objecting).
4. Moving apiaries to forests, buckwheat fields, or any other pasture, each must respect a distance of 200 metres, and 25 metres from any public highway.
5. Near bleaching, dyeing, or tannery establishments, the distance of 50 metres must be observed.
6. Apiaries will be protected by civil right and law.
7. The swarm issuing is the exclusive property of the owner of the parent colony with the right to capture the same, wherever found, without trespassing.
8. An absconding swarm is ownerless, as soon as sight is lost of the same.
9. Such swarm will be the property of the capturer.
10. In case of swarms uniting, each rightful claimant has a joint interest in the same; but in case of a disagreement, decision will be made by arbitrary lot, or sale of same, dividing the proceeds according to the interest of each.
11. If a swarm enters a hive of any other apiarist inhabited by a colony of bees, all claims on the newly entered swarm by its former owner cease at once.

12. All transgressions of rules 3, 4, 5, will be punished by a fine of 150 marks, or 6 weeks' imprisonment.

13. Any one who willfully or maliciously in any way destroys (so-called) robber bees by water, fire, steam, or poison, or trap, shall be fined 600 marks, or an imprisonment for 1 year.

14. A fine of 600 marks will be imposed on any one who sells bees, hives, products, or implements infested by foul brood.

15. A fine of 60 marks, or imprisonment for 2 weeks, will be imposed on any one who (a) recklessly sells or gives away hives, boxes, products, or implements, etc. (b) Who carelessly, in his apiaries, sets up such colonies, or leaves scattered about combs so infested. (c) Who neglects to remove foul-broody, infested hives, or close the entrances of the same.—*Bienenzeitung*.

Murdering the Bees.

Only a few days ago one of my neighbors spoke to me about some colonies he had bought at a sale. He paid \$20 for 10 colonies. He intended to kill the bees and sell the honey, to make a profit on the money paid for them. After a little talk, I persuaded him to "let them live." I told him that if they had enough honey to bring \$20 or more, they had enough to winter on, and that \$4 each next Spring would be very low for them.

Whoever heard of such a thing as a man killing a hen to get the eggs, or killing a cow to get her milk. Killing bees to get honey is just as foolish. If your bees have failed to store enough to winter on, and you cannot afford to buy sugar to feed them, then, through sympathy, kill them, rather than see them starve to death. But if the bright, intelligent, "busy bees" have worked and toiled all through the hot Summer, through thick and thin, saving enough to live on through the long, dreary Winter, for pity's sake let them live and enjoy the results. Encourage industry, for it is "by industry we thrive."

Study the habits of your bees, you cannot help but love them; especially the gentle, intelligent, yellow Italians.—*Prairie Farmer*.

Kerosene for Propolis.

The handiest way of getting propolis off the hands is to have a small cup of kerosene handy. A few drops will "cut" the gum very satisfactorily.—*Gleanings*.

Queries and Replies.

Surplus Supers for Comb-Honey.

QUERY 747.—What kind of cases do you use in working for comb honey?—L. J.

T-supers.—C. C. MILLER.

T-supers.—J. M. HAMBAUGH.

T-supers.—H. D. CUTTING.

Heddon cases.—MRS. L. HARRISON.

Wide frames.—G. M. DOOLITTLE.

Surplus cases, of course.—C. H. DIBERN.

$4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ inch, in broad frames.—J. E. POND.

I use the Doolittle surplus arrangement for comb-honey.—P. L. VIALLOX.

The Heddon case, and also a case holding single-tier wide frames.—R. L. TAYLOR.

I have used a good many. I like the simplest T-super that can be made.—EUGENE SECOR.

The Heddon case and the T-super; and I like them both. I have also used some of Heddon's supers with broad frames.—A. J. COOK.

The old-style Heddon case without separators, the Heddon wide-frame case, and the T-tin case with separators. I use all of these every year. Where no separators are used, I think my old style case unexcelled.—JAMES HEDDON.

The Nonparel section-case for wide frames and wooden separators. The separators are put in loose, and the removable side of the case is clamped by the use of clasps, so as to bind all together solidly.—G. L. TINKER.

My surplus cases are made $\frac{1}{4}$ inch deeper than the height of the sections, in order to allow a bee-space under them. I can tier up one case on top of another, if required. By this arrangement sections of different widths can be used in the same case.—J. P. H. BROWN.

I use a section-case just the size of the top of the brood-chamber of the hive used. So that it fits on top of the brood-chamber with a square joint. The case is made $\frac{3}{8}$ of an inch deeper than the depth of the section used. Some of the cases have skeleton wood partitions, and some of them have T tin rests. The latter I always use, if separators are to be used; otherwise I prefer the skeleton

wood partition support. I divide the mechanical bee-space half at the top and half at the bottom of the sections. This enables me to put the section-case either top or bottom down, without smashing the bees or soiling the sections.—G. W. DEMAREE.

On the bottom of the case, slats, the width of the sections, are nailed, with openings like those between the sections. On these, strips of wood are laid, for the ends of the sections to rest on, leaving a bee-space between the slats and the bottoms of the sections. This arrangement is equivalent to a break-joint slat honey-board, and works very well.—M. MAHIN.

Pollen-Gathering Drones.

On page 811 may be found a question propounded by the writer, relative to drones gathering pollen and honey. At the time the question was asked, I was well assured that practical bee-keepers would smile at the apparent veridancy of the questioner—it being a well-established fact that drones gather no pollen or honey. My attention was called to an unusual noise in my apiary, about the middle of the honey flow, during the last season, and, upon an examination, I found a large number of drones (as I supposed) going from and coming to the hive; and upon a close examination I discovered, to my surprise, that they were heavily loaded with pollen on their thighs; they also had white scales under their wings. I reported the fact to Mr. J. C. Hendricks, a practical bee-keeper, who said it could not be possible. But I still affirm that I am not mistaken; for what I have seen, I know. The bees were at least a third larger than the worker-bees, hence they are pronounced pure drones by Mr. Hendricks.

Decatur, Ill.

R. T. DAVIS.

We have often seen worker brood in drone cells, and once at least, we remember witnessing the emerging of worker bees from such comb.

It is not very uncommon to find drone cells (where drone-comb is too abundant) with the cells somewhat contracted by a heavy rim of wax around the mouths thereof. These cells are of course used for worker eggs, and the bees hatched in them are sometimes larger than ordinary workers, and may have been taken for drones in the above peculiar case, noticed by Mr. Davis. It may rightly be called "a freak of nature," in any case.

Topics of Interest.

How the Bees are Wintering.

JAMES HEDDON.

Some may be interested in my report from north latitude 42, that our bees were flying lively on Dec. 23. There is no snow on the ground, and bee-men around about here are happy. I am wintering about 350 colonies, some 60 of which are in the cellar, and all the rest out-doors; these are securely packed in dark red wintering boxes.

The Winter now so well advanced, having been so mild, I think the out-door bees will come out ahead. However, the 60 colonies in the cellar, which have been in about a month, are at this time exceedingly quiet.

Many of the older readers of the AMERICAN BEE JOURNAL will remember about the "Heddon pollen-theory," and the radical opposition to it, which seemed to come, more than anything else, from jealousy as to who would be the first to discover the cause of bee diarrhea. There are now many younger bee-keepers and new subscribers who have heard very little regarding this theory, which I think I may say, is now a practical, settled science.

In consideration of the foregoing, it may not be out of place for me to say a few words regarding the consumption of pollen during Winter confinement as being the sole and direct cause of bee diarrhea, compared with which all other causes of Winter losses amount to nothing. To begin with, the excreta, every time it is analyzed, proves to be almost wholly and clearly undigested pollen.

It is also well known that bees, not only winter better, but much safer, when not one drop of pollen is in the hive. It is also a fact that a large portion of honey gathered in some seasons, is well filled with floating pollen, very thin, but still visible to the naked eye. This year there seems to be plenty of bee-bread in the hives, but the honey appears quite clear and free from floating pollen.

Now, if we keep our bees in such condition, that no special temptation to pollen-consumption is present, I believe they will winter well. It is well known that a low temperature is the prime cause of bees consuming pollen; the cold stimulating them to exercise, which results in a waste of animal tissue, and

this waste quickly prompts the bees to make it up by the consumption of nitrogenous food (pollen), which clogs the intestines and produce diseases where long confinement follows. At this time, we have a right to hope that neither one of these conditions will be experienced with our bees, wintered either out-doors or in special repositories.

I desire to impress upon the younger readers of the BEE JOURNAL, the fact that Prof. A. J. Cook, in connection with the Michigan State Chemist, Professor Kedzie, has several times analyzed the excreta, and found it pollen first, and pollen last. I saw, years ago, and I will here say that everything coming under my observation since that time has only gone to confirm the theory (nay, the truth) that this pollen-consumption is the one and only great cause of the Winter malady, which has decimated the bees in the Northern States, year after year, as well as the pocket-books of our most enterprising bee-keepers all over the country.

One of the greatest evils from which honey-producers suffer, in the way of heavy losses of bees in Winter, or light crops in Summer, or both combined is, that honey being a luxury, the price will not go above a certain point, let the scarcity be what it may. Our success demands plenty of bees, good crops and low prices, it seems to me.

Would it not be well for bee-keepers all over the United States to commence to report regarding the present condition of bees, the kind of weather they have been having, that we may begin to estimate what the results of wintering will be throughout the country?

Dowagiac, Mich.

When and Why do the Bees Die?

REV. DR. JOHN DZIERZON.

Every one knows that during the time when the fields are full of flowers young bees are hatched in all healthy and populous colonies daily, not by hundreds, but by thousands; every parent colony, as a rule, giving off the first swarm, and one or more second swarms, in which the work of increasing the population is carried on in a similar way as in the parent colony. If this went on continually, the hives would soon be incapable of holding the large number of bees forming the colonies, and the country would in a short time be unable to support the number of colonies of bees in the different districts.

But as it has been ordained that trees shall not touch the sky, so it has also been wisely arranged that the number of bees in a colony, and the number of colonies in a country, shall not increase excessively; for quickly as bees make their appearance, they die off just as rapidly.

It is well known, when and how the largest number of bees and colonies originate, but it is not so generally known (because it does not strike us so forcibly) when and in what manner most bees die. A discussion of this subject might not therefore be without interest to bee-keepers.

BUT FEW DIE A NATURAL DEATH.

Very few bees, indeed, die a natural death, from the infirmities of old age, unless we regard as natural, that kind of death which finally overtakes them, through the inability of their wasted wings to carry the weight of the body any longer, when (especially during high winds) they fall fatigued to the ground at some distance from the hive, and perish.

When incessantly at work, in the Summer, the life of most bees does not exceed six weeks; but during the period of rest, in Autumn and Winter, and in queenless colonies, there is little or no change in their appearance, and they may then live for 9, or even 12 months; of this any one may convince himself by allowing a colony to remain without a queen.

MOST BEES DIE PREMATURELY.

The largest number of bees are destroyed by their greatest enemy, the cold, partly inside the hive, and partly in the open air.

We all know that many bees die on the snow, especially when loose, and of a dazzling, white appearance. They fall to the ground and remain there, not only near their hives, but frequently at a considerable distance from it, as many a bee arriving half-chilled will rise again and be borne away by the wind as long as it is able to move its wings. In the direction in which the wind blows, the greatest number of bees may therefore be discovered, lying on the snow.

Large numbers of bees perish in March, and even in April, at which time they show an extraordinary desire for fresh pollen, which induces them to rush out of the hive every time the sun appears, and to venture on long excursions, during which they get chilled and fall to the ground, when the sun is hidden be-

hind the clouds, or when the wind is getting cold.

In spite of breeding, the loss of workers at this time of the year is frequently so large as to make the colony appear weaker at the beginning of May, than at the beginning of March.

In May and June, however, the population of every healthy colony increases from day to day, because the air has now become so warm that bees do not easily get chilled. When the sun rises to the highest point in the sky, our colonies, as a rule, have the largest population; so large indeed do they become that in many hives there is scarcely room enough for all the bees, and a part of them are obliged to remain outside the hive day and night.

But when the days begin to shorten, and the honey sources become scarce, the bees of the colonies which have remained undivided, decrease at the same rate at which they increased previously.

Now, how is this visible loss in population to be accounted for, as on account of the still high temperature, but few bees get chilled, and being less active now, they do not get worn out so quickly?

Most of the bees which perish at this time, doubtless, become a prey to their numerous enemies. The number of bees snapped up by birds, is exceedingly small compared to the number destroyed by their small, but more numerous enemies, the field spiders, hornets and wasps. The latter, which increase enormously if favored by warmth and dry weather, destroys an incredibly large number of bees, especially in August.

A good many bees, especially old ones, in their anxiety to collect as much honey as possible, no doubt venture upon long excursions to distant moors, when no longer any pasture is to be found near the apiary, and overtaken by contrary winds, or rain, are unable to return to their hives.

SOME ARE CHILLED IN THE HIVES.

We know that some bees, and often a great number die inside the hive, the cause in most cases being their not following the gradual contraction of the cluster of bees when the temperature is falling; but especially when, as often happens, cold weather sets in suddenly; they get chilled and die, unless restored to vitality by the application of heat within 24 hours.

Baron von Ehrenfels, who had an intimate knowledge of bees, was in the habit of placing his straw hives in rows between boards in Winter, and to fill up

the empty spaces between with some warm material. I consider that such a precaution here is quite superfluous, but by no means injurious to the bees; for the less heat that escapes unnecessarily, the more economically and healthily will bees winter, and the longer will they be able to delay from flying out.

It is of course necessary that there should be a sufficient supply of fresh air, for as a fire in a stove becomes extinguished when oxygen is excluded; all generation of heat, and life itself, in the bee-hive ceases when all the oxygen has been consumed. Ay, there's the rub! The want of air fit for breathing, and perhaps also of water, is the cause of bees becoming restless, which ignorant and superficially-informed people attribute to excessive heat.

But even should the irrepressible impulse of bees to cleanse themselves be the cause of the restlessness in a colony, which is quite imaginable, it will in any case be advantageous to keep bees sufficiently warm and active to enable them to get to the entrance and cleanse themselves there, instead of being obliged to do so, half-chilled, in the cluster, which would almost certainly cause the immediate ruin of the colony.

We know very well, that as long as bees are able to get at their stores of honey, they can stand severe cold; and, if examples are mentioned of bees having wintered well in high northern latitudes, this proves nothing against the expediency of providing as much protection against the cold as possible.

Some Italians, who accompanied the Austrian Polar expedition, survived the fearful Winter of those cold regions, without any apparent injury to their health; but no sensible man can possibly doubt that they would have felt much more comfortable in their own native country, where the climate is mild.

For bees to be obliged to draw closely together, to tremble with cold, and to pipe in a higher key, has always to be considered an evil which a sensible and careful bee-keeper will endeavor to guard against, as much as possible. Though he cannot procure for them the mild air of Italy, he should at least make their Winter-quarters as warm as possible, in order to lessen the injurious effect of the cold.

There can be no objection to reducing the number of combs moderately in the Spring, and after a colony has done swarming, when the bees are able to renew them in a short space of time, which they evidently do with eagerness; and I myself frequently have recourse to this

means, in order to obtain guide-comb; but to destroy, in Autumn, the Winter-quarters which the bees have arranged for themselves, and to expose them during a long Winter to the direct influence of a fierce cold; and, finally, to advocate destroying bees by brimstone, is a barbarism of which societies for the protection of animals should inform the police, in order to have the offenders punished!

Want of water afflicts, and even ruins, many colonies, when obliged to consume candied honey, or honey which has become very thick.

DISEASE FROM FOUL-BROOD.

But more dangerous than candied honey is the honey gathered from fir and pine trees. When bees are able to fly out, it does not appear to affect them injuriously, but if compelled to use it exclusively, at a time of extreme cold, in the Winter, there is a great risk of its doing them harm. Such honey being slimy, capable of being drawn out in the shape of a rope when the temperature is low, appears to be almost insoluble in the absence of water, and less nutritious and warming than other kinds of honey, for which reason a large quantity of undigested matter is retained by the bees in their body, which generally causes diarrhea when bees are confined to their hives for some considerable time.

After a long and severe Winter thousands of colonies die of diarrhea, which disease is quite unknown in Southern countries, where the Winter is mild and of short duration.

QUEENLESSNESS IS FATAL.

The number of colonies which perish from queenlessness every year is also very large; for if an old queen dies in Autumn or Winter, or a young queen is lost during her wedding trip, or if she remains unfertilized, the bees in the hive, sooner or later, disperse, or the colony becomes a prey to bees from other hives.

According to the opinion and experience of Baron von Ehrenfels, the number of colonies of wild bees which perish through having lost their queen is greater than those which die from starvation, as he infers from traces of drone-brood which he discovers.

As, however, districts and seasons vary considerably, we may expect to find a great difference in this respect.

STARVATION.

During a Winter, preceded by a season unfavorable to bees, it is very likely that

more colonies will die from starvation than from queenlessness.

After a favorable season, when the colonies are plentifully supplied with food, the bee-keeper need not be concerned about his bees; but after a bad season, it is necessary to watch the bees and examine them frequently, in order that repentance may not come too late. —*British Bee Journal*.

Cause of Bees Freezing to Death.

G. M. DOOLITTLE.

I see by one of the papers that it is thought by some that bees often freeze to death during the Winter, and that the cause of our wintering trouble is largely due to the fact that there are no holes or Winter passageways through the combs so, that as the cluster contracts during extreme cold spells those bees which are on the outside of the cluster do not or cannot keep up with the cluster, so are frozen to death. In this way, after each warm day during the Winter, hundreds of bees freeze till the cluster is so reduced that the whole freeze together.

I think that such is a mistaken idea, and do not believe our wintering trouble is caused by bees freezing, but it is caused by the bees getting in an abnormal condition from many of the various causes brought about by long continued cool or cold weather, which they do not have in their native or warm climate.

From many observations I find the following to be a correct state of affairs inside of the hive when the bees are in a normal condition.

As Fall approaches, if we examine a colony of bees we find that the activity manifested during the Spring and Summer, in the interior of the hive, becomes less and less, so that by the middle of October, in this latitude, all brood rearing has ceased and the bees have become partially dormant; still so far, they have not packed themselves away in a snug cluster, or compact shape, for Winter. Every opportunity given by a warm day is improved to void the feces, so the bees may be prepared for a long cold spell, when such an one occurs.

As the weather grows colder, the bees contract their cluster, many packing themselves away in the cells till the smallest space is occupied by them, and thus the requisite warmth is secured to keep them alive when the mercury sinks below zero.

In this contraction of the bees (at certain times) many of them are left singly or in little clusters of from 5 to 10, which do not recede with the main cluster, and thus are chilled where they are, and if the weather becomes cold enough, they may be frozen, thus losing to the cluster that number of bees.

The reason for this, as formerly given, and more minutely outlined than the above was, that owing to the movable frame, no cross-sticks were used, as was the case in the box hives, and hence the bees left no holes in the center of the combs as they did around the cross-sticks, thus compelling the bees to pass over and around combs of cold honey, to keep pace with the receding cluster, instead of passing through the center of the combs to the next range which was more nearly filled with bees; and because of this, many bees were frozen.

To obviate this, the Langstroth frame, and others, were provided with a shaving bent to form a circle an inch in diameter, which was suspended from the top bar by means of a little strip of tin, supposing that this would effectually secure a passageway for the bees. However, but a short time elapsed before it became apparent that during a good yield of honey this shaving would be filled with comb and honey, and hence the passageway was cut off.

Next, the practice of cutting holes through the combs each Fall, by various means, was resorted to, only to be filled up the following Summer, when, as Winter approached, the process had to be repeated again.

After trying all these plans, it became apparent to me that the reason assigned as the cause of the death of the bees was not the real trouble, for bees would stay and die within one-half of an inch of these holes, when it would appear that they could have passed through these passages just as well as not.

I also discovered that when the weather was cool, cloudy and rainy, for several weeks before it came severely cold, that this loss was apparently much greater than when a clear, warm day occurred, immediately before a severe cold spell. By the number of bees that were found on boards and such places, dull and stupid, after such a fine day, I concluded that these were the same bees that would have died by not following the cluster, had not a warm day occurred for them to leave the hive to die; hence, I say that the loss was apparently greater when no such day occurred, for many more bees were seen outside of the cluster dead, as they had no chance to

get outside of the hive to die. After years of experience, I believe the above to be a correct solution of the matter.

When being fully settled for Winter and this loss of old bees has passed away, a colony will lose but few bees for 6 weeks or 2 months, and will remain quiet. If at this time a warm day occurs so they can fly freely, they again cluster back quietly, and remain so, about the same length of time, when they again desire to fly, and if such a chance occurs, all will go out, and the bees Winter well.

Thus we have a colony in a normal condition, and all the cold ever obtained in any portion of the world where bees can be kept with profit (occurring during this period between their flights), will not materially injure them if they have plenty of stores within easy access. In years gone by, I have purposely prepared very small colonies or nuclei to test this matter, and I find that colonies which do not occupy more than one-fifth the room occupied by an ordinary cluster or colony, will safely pass through a spell of cold weather, during which the mercury sinks as low as 20° below zero.

To test the matter more thoroughly, I once raised a hive, having a small colony of bees in it, off the bottom-board a foot or more, and took off all the covering from the top, leaving them thus during a night in which the mercury went down to 15° below zero, yet in the morning they were all right as far as I could see, and came through that Winter in excellent condition.—*Rural Home*.

The Closed-End Frames.

W. P. FAYLOR.

Much is now being said about "closed-end frames." I have experimented some with frames so made that the end-bars were each an inch-and-a-half wide and half-an-inch thick, with top and bottom bars just alike, so as to admit of either side of the brood-chamber being turned up. The end-bars extending so as to allow a bee-space above and below the top and bottom bars. These frames rest directly upon the bottom-board; and two boards, as long and as wide as the frames, form the side-enclosure of six, eight, or any number of frames.

I find no trouble about separating the frames, or in the crushing of bees; but the main difficulty lies in getting something suitable for drawing the frames tightly together.

Driving a nail in the end of each board, midway, and stretching a wire

doubly across, from board to board, after the Bingham fashion, will work, but not to my satisfaction. It seems to me that some kind of a coil spring might be invented to hold such frames in position.

Could we get something to hold any number of such frames together, then we could have just what we want. We could then take an eight-frame hive and use four frames above and four below, forming a double decker, and a large number of such hives can be packed in little space.

I do not think it practical to use closed-end frames inside of box-enclosures, the way we use the hanging frame. We want the closed-end frames so that we can separate any two frames by running a knife between the end-bars. This cannot be done so readily where the frames are inside of a box held by thumb screws or wedges.

The advantages of such a hive need no comment. I should like to hear from others who have experimented in this line. Let us go a little slow before we make kindling wood of our "Simplicity" frames.

State Line, Ind.

Haunts of Bees—Bee-Trees.

MRS. L. HARRISON.

There is a blacksmith in this city who is an enthusiast in bee-culture. He will get up by daylight on Sunday mornings, take a piece of bread and butter, and walk seven or eight miles to an apiary, watching for bees upon the bloom. In a recent visit I asked him if he had been to the buckwheat fields this Fall. He said that he had; but when he was there, the bees were not working upon buckwheat, as it was completely covered with wild cucumber vines, which were blooming profusely, and the bees were working upon them.

I knew that there was a flow of honey following buckwheat, but I was ignorant of the source, until this lover of Nature in her happiest moods, informed me.

BEE-TREES.

This enthusiast has made friends with some wood-choppers, who have spent their whole lives in the woods, and are always on the alert to discover bee-trees. He accompanied them lately on a bee-tree cutting expedition. He said that while chopping the tree, the bees covered him and stung him viciously, but as soon as the tree fell they left him, for they had no home to defend. The men

took away a large wash-tubful of honey and two wooden pailfuls.

When they were taking out the honey from the hollow tree, they came across two large combs full of brood, that were sealed, and chipping. The bee-keeper said, "I would like that." The woodmen said, "You've a basket; what's to hinder? Take it along if you want it." So he carried it home and fastened it into frames, and gave it to a weak colony, which increased their number wonderfully. He measured a piece of comb, $5\frac{1}{4}$ inches square, and counted the embryo bees, and there were 585 on each side. This tree was cut during the Fall flow of honey, which was the best time of the season, and the colony had queen-cells, getting ready to swarm.

HUNTING BEE-TREES.

These woodmen do not practice baiting and lining bees, as there are so many kept along and under the bluffs facing the Illinois river bottoms, but they watch them in their flight towards the river, and from long practice have become adept in locating them.

As they walk or drive through the woods, they scan the trunks of trees, and their practiced eye soon discovers if there are bees going or returning to it, with the sky for a back-ground.

During the Winter, when there is snow, and bees clean house, the dead are readily seen upon its white surface; or bees take a purifying flight, when the trees are leafless, upon mild, warm days. They also drink the sap from fresh chips, and may be traced home among the bare trees.

Bees choose strange places for a home occasionally. In a late number of the *British Bee Journal* is an amusing account from a correspondent in South Africa, of the result of such a choice.

A Dutch farmer and his frau were getting ready to go to a neighboring village to attend sacrament. The farmer hurried his frau, as it was getting late, and entering the vehicle they drove off. Soon the frau was slapping and screaming, and the farmer and the driver beating accompaniments, and the old mokes of horses were kicking and galloping, when they drove in among the assembled worshipers. Soon the latter joined in the fusillade, and never was there such a looking crowd after the fray—big noses, closed eyes, and thick lips. A swarm of bees had taken possession under the seat, and stored 40 pounds of honey, and the jolting drove the bees out on the war-path.

FLOUR AS A PEACE-MAKER.

In England, flour is very popular, to use in uniting bees in the Fall, to prevent fighting. When they are put together, flour is shaken over them from a dredging box, and when they lick themselves clean, they are quite friendly. Peoria, Ills.

Apiculture in Agricultural Schools.

DR. C. C. MILLER.

On page 806, C.B. Jenks speaks of the Rhode Island Agricultural School as being the only one which gives to its students a thorough practical knowledge of bee-culture. Mr. Jenks is hardly posted. Has he never heard of Prof. A. J. Cook, who for years has been giving thoroughly practical instruction in the theory and practice of bee-keeping? Does he not know that Prof. Cook has that as one of his regular duties in the Michigan Agricultural College?

SWARMING WITHOUT DRONES.

Dr. Carpenter's experience, given on page 806, shows that the absence of drones is not very reliable as a practical prevention, to say the least; and the doctor should not be very much surprised at it, after the replies given on page 740. The answers there printed show only 5 out of 19 who think such a thing impossible.

It may not be entirely safe, however, to assume that there was no possibility of the presence of drones. In a strong colony, it would take more than ordinary scrutiny to make sure that not a single drone was there. Even if, to-day, each bee marched by in single file, showing the absence of all drones, what assurance have we that one or more drones from some neighboring colony, may not have entered, by to-morrow?

In any case, we are pretty safe in saying that a colony *may* swarm, although no drone may be seen in the hive.

THAT ESSAY BUSINESS.

Friend Newman: Don't you know that if I am not with the majority, that does not prove that the majority is always right? The fact that you have many applications for essays, only proves that secretaries are anxious to secure them from you, as a good advertisement, on their programmes. Especially if those who see the programmes think that the editor of so good a journal, is likely to be present, in person.

I agree with you, that if matters are not run in pretty good shape, it may be better to have the time filled up with first-class essays, than with very poor discussions; but when it comes to that, I would rather read them in the AMERICAN BEE JOURNAL.

Marengo, Ills.

[We intended to have followed Mr. Jenk's article with a foot note, referring him to the Michigan Agricultural College, but in our very great rush of the past 2 months, it was forgotten until too late. He evidently is not as well acquainted with Prof. Cook as we are.

As to the Essays at Conventions—of course the majority are not always right, but it is pretty safe to locate with it generally. In all our popular institutions, on all questions of political economy, on all the great questions of the day, the popular sentiment and verdict of the majority control, and to it we bow with all the grace at our command. So, if essays at Conventions, are considered essential and for the best, all things considered, count us with the majority. —ED.]

Successful Out-Door Wintering.

J. H. LARABEE.

In any discussion of the subject of out-door wintering, Vermont should, I am sure, have a voice. All over the state, but more especially in the Champlain valley, bees are wintered out-of-doors. Whether those who inaugurated this system did so with a full knowledge of all the advantages to be obtained with light hives and cellar wintering, I know not, but the fact remains that scores of bee-keepers here practice this method with scarcely a desire for a change.

Our valley is favorably situated, the cold being tempered by warm breezes from the lower Hudson region; but an examination of the meteorological observations of the signal station at Burlington would convince many that this effect is not too apparent.

But there are other reasons beyond the control of the average bee-keeper, why our bees winter so successfully.

The character of the honey used for Winter stores is generally of the best, as so little Fall honey or honey dew is

obtained that the major part of the Winter stores, if of honey, must be of the white honey crop. This same lack of Autumn forage also renders late breeding light, and frees the combs of much surplus pollen. It is no rare occurrence to find no brood of any kind in the hives by the first of October.

Winter flights are very desirable at a proper time, but may be injurious. A good flight during December is always beneficial, but one between January 10 and the middle of February is often extremely injurious, as breeding is induced; and should no flights occur until after the first of April, as often happens, diarrhea may be the result.

If Spring protection is of sufficient importance to repay all the trouble of providing packing, then should we, who winter in chaff hives, congratulate ourselves upon having obtained this protection without an hour's extra labor.

The increased consumption of stores in out-door wintering is, I am quite sure, not as apparent at the opening of the clover bloom as on the first of April; as honey is, I contend, consumed in much larger quantities at this season, by colonies wintered in the cellar, than by those wintered in the open air.

One word more with regard to the method of packing in use here. The material may consist of almost any porous non-conductor of heat. Chaff and planer shavings having the advantages of lightness, are the general favorites. Care should, I think, be exercised that the packing be perfectly dry; that it may absorb as much of the moisture of the bees as possible; moisture being feared next to poor stores as a cause for Winter loss. The packing is held in place by an outer-case, consisting of 2 rims of about 10 inches in width, each with a good gable roof or top. These rims are about 2 inches larger, inside, than the brood chamber, leaving that amount of space for the packing.

After the close of the honey season, the bees are left as much as possible to themselves, the only care being that they have sufficient stores for the Winter, until about the first of November, Fall "tinkering" and excitement being avoided as detrimental. At this time the brood chamber cover is removed and a piece of burlap or cotton placed upon the frames and the top filled with packing to the depth of about 6 inches. Formerly this super-packing was used loose, but now sacks, or trays with cloth bottoms, are used to hold the chaff or shavings. These sacks are very handy in Spring, when upon some warm day it is desired

to examine many colonies. The packing is not removed until settled warm weather and then only from the top; the sides remaining packed throughout the year. This packing at the sides, I consider an advantage, even during the sultry days of basswood bloom.

In answer to the argument of cumber-someness, I will simply say that nearly all of the improved methods of management at all seasons of the year may be practiced with chaff hives without the moving of a single one. How this may be done could form the subject of many long articles.

Last Winter I wintered 96 colonies out-of-doors in chaff. On the first of April all were alive; one was queenless and one dwindled during April as a result of late "tinkering."—*Bee-Keeper's Review*.

The World's Columbian Exposition.

REV. W. F. CLARKE.

So it is called by the AMERICAN BEE JOURNAL and Dr. Mason—both high authorities. But I venture to think the name is not a happy one, and that if generally adopted, it will have a deterrent influence on exhibitors. When the Colonial and Indian Exhibition at which Canada made such a magnificent display of honey, was held in London, England, the exhibit was limited by the title adopted to the colonies and to India. The adjective "Columbian" seems to convey the idea that all the world is to be invited to come and see the aggregation of wonderful things the people of the United States are going to spread out before their admiring eyes.

I am not going to question the accuracy of Mr. Dadant's admirable report, but if I said what is attributed to me, I certainly spoke "without book." I had no right to say that "Ontario had already taken steps in regard to the Columbian Fair; and that the Province expected to make a very large display." What I ought to have said, was, that Ontario bee-keepers had already been discussing the matter, and that, prior to the passage of the McKinley bill, there was an expectation and disposition to take part in the exhibition. I referred to the fact that I had seen in some United States papers, the inquiry started whether the McKinley bill might not have a tendency to prevent foreign nations from participating with the same heartiness that they would have done before that piece of legislation became an accomplished fact. I did not know

whether it would cool the ardor of Ontario bee-keepers or not, but I regretted the unfriendly spirit which seemed to lurk in the McKinley bill, and feared that it would have an unhappy influence on both countries, as it plainly disclosed a policy of non-intercourse.

Guelph, Ont.

[Whether Mr. Clarke thinks that the name (The World's Columbian Exposition) is "a happy one" or not, it is so named by Act of Congress, and also in the President's Proclamation, as published, last week, on page 8. It will doubtless be held, become a grand success, and pass into history under that name; and as anticipated by Mr. Clarke, President Harrison has invited all the world—Canada included—to appoint representatives and send exhibits.

No one should entertain any fears that the McKinley bill will materially interfere with the success of the Fair. Congress will see to it that all articles intended only for exhibition will be admitted free of duty.

The "unfriendly spirit" which Mr. Clarke is so much exercised over, exists only in his imagination!

As to the course the Ontario Bee-Keepers' Association will pursue about making an exhibit, we shall know more after its session this week. We imagine, however, that its members known to entertain broad and liberal views will exert their influence in the right direction.—Ed.]

If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing," a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, bound in cloth, \$1.00.

CONVENTION DIRECTORY.*Time and place of meeting.*

1891.
 Jan. 13.—Cortland Union, at Cortland, N. Y.
 M. H. Fairbanks, Sec., Homer, N. Y.
 Jan. 13-15.—Nebraska State, at Lincoln, Neb.
 J. N. Heater, Sec., Columbus, Neb.
 Jan. 16, 17.—Indiana State, at Indianapolis, Ind.
 Geo. C. Thompson, Sec., Southport, Ind.
 Jan. 19, 20.—Colorado State, at Denver, Colo.
 E. Milleson, Pres., Box 2522, Denver, Colo.
 Jan. 20-23.—Minnesota State, at Minneapolis, Minn.
 C. Theilmann, Sec., Theilmanton, Minn.
 Jan. 22-24.—New York State, at Albany, N. Y.
 Geo. H. Knickerbocker, Sec., Pine Plains, N. Y.
 Jan. 28.—Vermont State, at Middlebury, Vt.
 J. H. Larrabee, Sec., Larrabee's Point, Vt.
 Feb. 10, 11.—Ohio State, at Toledo, O.
 Miss Dema Bennett, Sec., Bedford, O.
 Feb. 11, 12.—Eastern Iowa, at Maquoketa, Iowa.
 Frank Coverdale, Sec., Welton, Iowa.
 May 7.—Susquehanna County, at Montrose, Pa.
 H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood, Starkville, N. Y.
 SECRETARY—C. P. Dadant, Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon, Dowagiac, Mich.
 SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.**Bees very Quiet.**

The past season has been a very poor one for honey, with me; not half so good as 1889. Many others I know, are in the same condition. My bees have been in the bee house for 6 weeks; and the temperature ranges from 42 to 45°. I never saw bees quieter.

JOHN DEWAR.

Tiverton, Ont., Dec. 26, 1890.

Greatly Pleased.

The first number of the BEE JOURNAL for 1891 is here. I am greatly pleased with the new form, the better arrangement of the reading matter and the beautiful clear print. Every bee-keeper in America should take a lively interest in supporting the Journal that is doing so much for the advancement of our pursuit. I hope every subscriber will make an effort to get a new one, and thus aid you in maintaining this new and expensive venture in enlarging and improving our leading bee-periodical. I wish you the greatest success.

DR. G. L. TINKER.

New Philadelphia, O., Jan. 1, 1891.

Better than Many Others.

My report for 1889 is not very good. I started in the Spring with 70 colonies. They increased to 77 and gave 2,200 pounds of comb honey in one-pound sections.

JAMES CARPENTER.

East Maine, Broome Co., N. Y.

No Cold Weather Yet.

Up to this date the weather has been remarkably pleasant. There has been but little snow or freezing. Bees fly frequently, and on one day I thought to excite them to fly generally, by supplying plenty of watered honey; they cleaned out all that I exposed, 10 pounds at least. There is no sleighing yet.

S. D. HASKIN.

Waterville, Minn., Jan. 1, 1891.

Home Market for Honey.

My 60 colonies are in good condition, and had a flight on Dec. 22. The honey crop was not very good, but the bees gathered plenty to winter on from the Fall blossoms. It has been extremely dry here, since June. Comb honey, in our home market, sells at 20 cents per pound, and extracted honey sells at 10 cents per pound, but the demand is not abundant.

P. E. VANDENBURG.

Jerseyville, Ills.

Plenty of Winter Stores.

I close the season of 1890 with 51 colonies of bees and 900 pounds of comb-honey in 1-pound sections. I keep my unfinished sections for the Spring feeding. My hives this Fall were unusually heavy with bees and honey. These I placed in Winter-quarters December 4. I put a number of newspapers on top of the brood frame, then place a board on top of them and tie a piece of binding twine around the front and back part of the hive to keep the top and bottom boards in place. First, I place a row of empty hives on the bottom of the cellar, and then tier them up from 3 to 4 hives deep, and about once a week I pay them a visit, and with a long wire hook remove all dead bees found at the entrances of the hives, being very careful not to make any noise, or shake the hive as this disturbs the bees. Thus far my bees appear to be wintering well, and they are not troubled with rats and mice playing hop, skip and jump over their hives. I fully agree with Mr. Dibbern that these pests are quite unnecessary, and my way of exterminating them is not to keep a cat, but buy a box of

Rough on Rats and sprinkle a little on some bread, spreading it thinly with butter to hold the poison on the bread; also take some pumpkin seeds, split one end and put in a little of the poison and place the bread and seeds where the rats and mice come into the house and cellar, and in 3 days' time it will be hard to find even a track, for it most effectually exterminates them. I keep this bait in my cellar constantly while my bees are there for the Winter. This has been a discouraging season to many bee-keepers in this locality, but I say "hold the fort" there are better days coming. My honey sold at 16 and 18 cents per pound. As I desired to make bee-keeping a specialty, it was very disappointing to me in not securing the usual increase of swarms.

G. N. BENHAM.

Red Wing, Minn., Dec. 29, 1890.

Prevention of After-Swarms.

In the BEE JOURNAL for Dec. 27, 1890, I find an article on the prevention of after-swarming by R. Dart. I have practiced the method he recommends, and I will cheerfully say with him, "it is simple, and it never fails to accomplish its work," but it brings me a later and more serious trouble. Generally, in August, at the commencement of the golden-rod harvest (for in this location we generally have a good harvest from the National Flower), these first or prime-swarms send out a large swarm. The weather at that time is generally very warm, and it is not very pleasant to have such swarms to deal with then. Any one who will tell us how to prevent these swarms, will confer a great favor on at least one of your constant readers.

Sunapee, N. H.

J. P. SMITH.

Italian Bees Ahead.

During the Spring of 1890 I started with 32 colonies of bees, which were in splendid condition; these increased, by natural swarming, to 44. The season was very unfavorable for gathering honey until the latter part of August, when the golden-rod commenced to yield, and as a natural result, the weight of the hives were increased from 2 to 3 pounds per day. Although we had an abundance of white clover throughout the season, it did not yield any honey in this vicinity. About the latter part of September I had to feed my bees for Winter storage, and this took more than one barrel of granulated sugar. I will also send an account of a friend's bees

which are under my care. His 35 colonies, Spring count, increased to 43, by natural swarming. They were in very poor condition in the Spring, yet I think they have done much better than mine, probably because they were Italians. As a rule, I use the Simplicity hives, but I have a few colonies in box-hives. I hope that the coming season will be a more productive one than the past has been.

J. A. HOLMBERG.

St. Paul, Minn., Dec. 18, 1890.

Fair Honey Crop.

I prize the BEE JOURNAL very highly. Any one would bethe loser to be without it, if it should cost ten times the price. It contains many practical and appropriate facts, which would add to the store of any man's knowledge. This has been a fair year for bees, although as a general thing it has been rather a poor year in this part of the Province. My honey average has been 40 pounds, Spring count. I am often surprised when I read of Western bee-keepers being obliged to feed the bees in the honey season, to keep them from starving. That is a thing I never have known during my 19 years of bee-keeping experience in this Province of Quebec, although it is so much further north than the Western States. There has been but one year in 19, but that I received some surplus, more or less, from my bees.

H. S. BALL.

Granby, Quebec, Dec. 29, 1890.

Only Enough Honey for Stores.

The past year has been a poor one for bees. There was not much more honey gathered than was needed to Winter the bees. I extracted about 50 or 60 pounds per colony, from 18 colonies. Six of these were the increase from 12 colonies, Spring count. As far as I am able to learn, this is considered very good in this vicinity. We are looking forward to, and hoping for a better season in 1891.

JOHN L. HAWSER.

Van Horne, Iowa, Dec. 29, 1890.

No Honey and no Increase.

The honey crop in this locality has been a failure during the past season. There has been no honey and no increase. The result is: Spring count, 100 colonies; Fall count, 100 colonies. Bees are in good condition for Winter. The weather is very dry. S. H. MOSS.

Colchester, Ills., Dec. 31, 1890.

Gathering Honey Now.

My bees have been gathering honey and pollen every day this month. I had 21 colonies in the Spring; I have taken from them 601 pounds of comb-honey and 2,340 pounds of extracted honey, and have about 300 pounds yet to extract. They increased to 42 colonies. I make my hives, 8 frames, and 2 story, or 16 frames in both stories. The frames are $9\frac{1}{4}$ by 16 inches, inside measure. The hives and frames are made of coal-oil cases, taken to pieces and re-made, so as to take the above-mentioned frames. They cost me from 5 to 10 cents per case. It takes about $2\frac{1}{2}$ cases to make a hive and frames. They stand in the open air, in the shade of trees. They are covered in the rainy season with raisin trays. I have no fussing here about wintering. P. W. McFATRIDGE.

Ontario, Calif., Dec. 20, 1890.

Insuring Bees.

In regard to insuring bees I will say to E. L. Plumb, who asks for information on this subject, on page 811, of last year's BEE JOURNAL, that I insure in the Phoenix Co. of London, England. The following clause occurs in our house and barn policy: Six hundred dollars on bees, bee-hives and honey, while in the dwelling or yard of the above-described premises." I have 100 colonies insured. The rate on farm and personal property here, is 1 per cent. for 3 years. The clause concerning bees, hives and honey, was inserted in the policy at the same rate.

H. P. LANGDON.

East Constable, N. Y., Dec. 15, 1890.

Mice in the Apiary.

As the year is drawing to a close, I will give a short report of my apiary. I commenced with 126 colonies, Spring count, which gave 12 swarms. I returned all but 4 to the hives, and these I sold to my neighbors at \$1.50 per swarm, they furnishing hives. I obtained 5,200 pounds of extracted-honey, the larger portion of which I sold at 10 cents per pound. The past season has been the poorest with me for 28 years, considering the number of bees and the condition they were in at the beginning of the Spring. The Fall crop was good, and the hives were well filled with sealed honey, and brood-rearing continued until the middle of October. I placed 88 colonies in the Winter repository, and 52 in chaff hives on the Summer stands, and they all seem to be in good condition

now. During the latter part of October I noticed an increase of mice, and I think they had a better season than the bees, or else they had a reunion in my bee-yard, bee-house and cellar, and as I was anxious to get rid of them, I tried the following remedy: I went to the drug store and got 15 cents worth of strychnine, and had it pulverized, then I had the cook prepare a dough with sweetening, and everything necessary for a sweet cake, in which I mixed the powdered strychnine, and after it was baked, I distributed it in a dozen different places, making sure nothing bigger than a mouse could get to it; and I have not seen one since. I look for a better season in this locality the coming year. The white clover having had a good start this Fall, I think the bees will come out all right in the Spring.

P. LATTNER.

Worthington, Iowa, Dec. 27, 1890.

Market for Honey at Home.

I think that the new shape of the BEE JOURNAL is quite an improvement over the old. The bees here, in Northern Ohio, had quite a "fly" on New Year's day. They spotted the hives quite badly, which shows that they had unripe honey for Winter stores. Last Summer I got about 15 pounds of comb-honey per colony, at the home apiary, and 28 pounds of comb-honey at the "out-apiary." Our honey was all basswood. We got 18 cents per pound, and the grocers came to the house for the honey. This is the way to get rid of your honey. Get up a home trade. I had about 2,000 pounds of honey for my crop last year.

ELBERT GREELEY.

Lorain, O., Jan. 2, 1891.

Reader, the BEE JOURNAL is working for your interest every day in the year, and now you are respectfully invited to work for its interest, by devoting a few hours to get a new subscriber for it, and thus help to make it still more valuable and useful to the pursuit.

A Word of commendation from our readers to those not among our subscribers, will be more potent than anything we can say. If you like our JOURNAL—please let your neighbor know it, and let us thank you in advance for this favor.

Clubs of 5 New Subscriptions for \$4.00, to any addresses. Ten for \$7.50.



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As there is another firm of "Newman
& Son" in this city, our letters sometimes
get mixed. Please write *American Bee
Journal* on the corner of your envelopes to
save confusion and delay.

Convention Notices.

The Annual Meeting of the Indiana State
Bee-Keepers' Association, will be held in the Agri-
cultural Rooms, State House, Indianapolis, Jan. 16,
17, 1891. GEO. C. THOMPSON, Sec., Southport, Ind.

The Annual Meeting of the Colorado State
Bee-Keepers' Association, will be held Jan. 19, 20, on
the Cor. 14th and Laramie Sts., Denver. The first
session will begin promptly at 10 o'clock on the
morning of the 19th. All interested in bee-keeping,
especially strangers, are cordially invited to be
present, and assist in the exercises.
E. MILLESON, Pres., Box 2522, Denver, Colo.

The 22d Annual Meeting of the New York
State Bee-Keepers' Association, will be held in
Agricultural Hall, Albany, N. Y., on Jan. 22-24, 1891.
Reduced Railroad Rates. Pay full fare to Albany,
and we will give you return certificates over any
road coming into Albany (except the Boston &
Albany) at one-third of the regular fare. A cordial
invitation is extended to all. Come and bring your
friends with you. A complete programme will be
published as soon as completed.
GEO. H. KNICKERBOCKER, Sec., Pine Plains, N. Y.

The Annual Meeting of the Ohio State Bee-
Keepers' Association, will be held in Toledo, O., on
Tuesday and Wednesday, Feb. 10 and 11, 1891. Full
particulars as to railroad and hotel rates, and place
of meeting, will be given later. Let all interested
in bee-keeping make an extra effort to be present
on this occasion.

MISS DEMA BENNETT, Sec., Bedford, O.
DR. A. B. MASON, Pres.

The Convention of the Eastern Iowa Bee-
Keepers, will be held in the Dobson Town Clock
Building, at Maquoketa, Iowa, Feb. 11, 12.
FRANK COVERDALE, Sec., Welton, Iowa.

The 8th semi-annual meeting of the Susque-
hanna County Bee-Keepers' Association will be held
at Montrose, Pa., on Thursday, May 7, 1891.
H. M. SEELEY, Sec., Harford, Pa.

The 12th Annual Convention of the Nebraska
State Bee-Keepers' Association will be held in the
Nebraska Hall of the State University at Lincoln,
on Jan. 13-15, 1891. The State Horticultural Asso-
ciation will meet at the same time, and arrange-
ments will be made to hold joint sessions. In order
to get reduced railroad rates, take a receipt from
your home agent, and have it read, "To attend the
Horticultural Association." This will procure for
you a return ticket, at one-third fare.

A good meeting is expected, and all are invited.
Matters of importance will be transacted pertaining
to an exhibit at the Columbian Fair, and our exhibit
with the State exhibit at the same. For further
information and programme, apply to
J. N. HEATER, Sec., Columbus, Neb.

A joint meeting of the Minnesota Horticultural
Society, and the Minnesota Bee-Keepers' Asso-
ciation, will be held in Minneapolis on Jan. 20-23, 1891,
in Guaranty Loan Building. A business meeting of
the Bee-Keepers' Association, apart from the Horti-
cultural Society, will be held at 9 a.m. on the 21st, to
adopt a Constitution and By-Laws. The afternoon
and evening sessions, on that day, will also be devo-
ted to the bee-keepers. All who are interested in
bee-culture should not fail to attend. An interest-
ing and instructive time is expected. A number of
prominent bee-keepers will be there. Prof. N. W.
McLain, of the Minnesota Experimental Station, an
expert on bee-culture, will give an interesting
lecture. C. THEILMANN, Sec., Theilmanton, Minn.

The Annual Meeting of the Vermont Bee-
Keepers' Association, will be held at the Addison
House, Middlebury, Vt., Jan. 28, 1891.
J. H. LARRABEE, Sec., Larrabee's Point, Vt.

The Cortland Union Bee-Keepers' Association
will hold its Annual Meeting in the W. C. T. U.
Rooms, in Cortland, N. Y., Jan. 13, 1891. All who
are interested are invited.

M. H. FAIRBANKS, Sec.
J. H. KENNEDY, President.

We send both the *Home
Journal* and *Bee Journal*
for 1891, for \$1.35.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal.....	\$1 00....	
and Gleanings in Bee-Culture.....	2 00....	1 75
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Bee-Keepers' Review.....	2 00....	1 75
The Apiculturist.....	1 75....	1 65
Bee-Keepers' Advance.....	1 50....	1 40
Canadian Bee Journal.....	2 00....	1 80
American Bee-Keeper.....	1 50....	1 40
The 8 above-named papers.....	5 75....	5 00
and Långstroth Revised (Dadant).....	3 00....	2 75
Cook's Manual (1887 edition).....	2 25....	2 00
Quinby's New Bee-Keeping.....	2 50....	2 25
Doolittle on Queen-Rearing.....	2 00....	1 75
Bees and Honey (Newman).....	2 00....	1 75
Binder for Am. Bee Journal.....	1 60....	1 50
Dzierzon's Bee-Book (cloth).....	3 00....	2 00
Root's A B C of Bee-Culture.....	2 25....	2 10
Farmer's Account Book.....	4 00....	2 20
Western World Guide.....	1 50....	1 30
Heddon's book, "Success,".....	1 50....	1 40
A Year Among the Bees.....	1 50....	1 35
Convention Hand-Book.....	1 50....	1 30
Weekly Inter-Ocean.....	2 00....	1 75
Toronto Globe (weekly).....	2 00....	1 70
History of National Society.....	1 50....	1 25
American Poultry Journal.....	2 25....	1 50
The Lever (Temperance).....	2 00....	1 75
Orange Judd Farmer.....	2 00....	1 65
Farm, Field and Stockman.....	2 00....	1 65
Prairie Farmer.....	2 00....	1 65
Illustrated Home Journal.....	1 50....	1 35
American Garden.....	2 50....	2 00
Rural New Yorker.....	2 50....	2 00

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Binders made especially for the *BEE JOURNAL* for 1891 are now ready for delivery, at 50 cents each, including postage. Be sure to use a Binder to keep your numbers of 1890 for reference. Binders for 1890 only cost 60 cents, and it will pay you to use them, if you do not get the volumes otherwise bound.

Supply Dealers, before issuing their Catalogues for next season, should write to us for terms on the *Globe Bee-Veil*. We have sold over 1,200 within the past year. They give universal satisfaction

HONEY AND BEESWAX MARKET.

DETROIT, Dec. 25.—Comb Honey is selling at 15@17c. White Clover quite scarce. Extracted, 7@9c. Beeswax, 26@27c.

M. H. HUNT, Bell Branch, Mich.

NEW YORK, Dec. 24.—Market is very quiet, especially on comb honey. We quote: Fancy white 1-lb., 15@16c; 2-lbs., 13@14c; off-grades, 1-lb., 13@14c; 2-lbs., 12c; buckwheat, 1-lb., 11@12c; 2-lbs., 10c. Extracted, basswood and white clover, 8½@9c; buckwheat, 6¼@7c; California, 6¾@7¼c; Southern, 65@70c per gallon. Beeswax, 25@27c.

HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Dec. 26.—Honey is very slow sale, both comb and extracted. We quote white 1-lb. comb, 16@18c; dark, 12@13c; white, 2-lb., 14@15c; dark, 11@12c; extracted, 6@7c. Beeswax, 25c.

CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Dec. 27.—Demand is fair for extracted honey at 6@8 cents. There is a good demand for choice comb honey at 18@20 cents. In the jobbing way. Arrivals are fair of all kinds but Southern extracted, which is scarce. Beeswax is in good demand at 24@26c, for good to choice yellow. C. F. MUTH & SON,
Corner Freeman & Central Aves.

CHICAGO, Dec. 12.—New honey arriving very slowly, demand active, and all receipts are taken promptly. We quote: White clover 1-lb., 16@18c; 2-lbs., 14@15c; dark 1-lb., 11@12c; 2-lbs., 9@10c. Extracted meets with quick sale, values ranging from 6¼@7¼ cts., depending upon quality and style of package. Beeswax, 28@30c.

S. T. FISH & CO., 189 S. Water St.

BOSTON, Dec. 26.—We quote fancy white 1-pound combs, 19@20c; fair to good, 18@19c. No 2-lb. combs in the market. Extracted, 8@9c. No beeswax on hand.

BLAKE & RIPLEY, 57 Chatham Street.

KANSAS CITY, Dec. 18.—Fancy white 1-lb. comb, 18c; fair to good, 17c; dark 1-lb., 14@15c; 2-lb. white comb, 15@16c; 2-lb. dark, 13@14c; extracted, white, 7c; dark, 5@6c.

HAMBLIN & BEARSS, 514 Walnut St.

ALBANY, N.Y., Dec. 27, 1890.—The honey market is quiet, but stock is light and prices well sustained. We are selling white at 16@20c; mixed, 14@15c; buckwheat, 12@14c. Extracted, white, 9@10c; amber, 7@7½c; dark, 6@6½c. Beeswax, 27@30c.

H. R. WRIGHT, 326-328 Broadway.

CHICAGO, Dec. 26.—There is not the volume of trade usual at this season, yet prices are without material change since last quotations. Best lots of white honey in 1-pound sections, brings 17@18c; brown and dark, slow, at uncertain prices. Extracted, 7@8c per pound. Our stock is light, as to quantity, but is kept well up to demand by daily receipts. Beeswax, 27@28c.

R. A. BURNETT, 161 S. Water St.

DENVER, COLO., Dec. 26.—First grade 1-lb. sections, 16@18c. Supply exceeds the demand at present. Beeswax, 25@28c.

J. M. CLARK COM. CO., 1517 Blake St.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this *JOURNAL*, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents**.

Members of the National Bee-Keepers' Union.

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